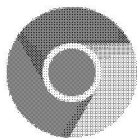


EXHIBIT 1



GBO Internal Comm Doc: Incognito Mode Detection Bug

Internal Only Privileged and Confidential

Product: Chrome

Last Update: Aug 20, 2020

High Level Overview:

Chrome is closing loopholes that have been used by sites to detect if users are in incognito mode. Detecting incognito sessions has privacy implications, which is the primary driver of these efforts to close the loopholes.

Some sites with paywalls have been using this bug to identify incognito users who are by-passing their paywalls. We've seen some [press coverage](#) positioning this bug fix as facilitating users' ability to by-pass paywalls.

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New & Noteworthy

August 21, 2020 - The fix will reach 100% roll out for all users with Chrome 81+.

July 21, 2020 - As of July 2020, Chrome is gradually rolling out a previously announced fix to address a loophole that could be used by websites to detect Chrome Incognito Mode sessions. The change ([Chromium issue #1017120](#)) was first announced in January and will apply to users with Chrome 81+. (Another change announced in January, [Chromium issue #990592](#), rolled out with Chrome 80 in February.)

Jan 7, 2020 - Chrome plans to address two additional loopholes which could be used to detect Incognito Mode sessions in Chrome 80 (Early Feb). [Update to Blogpost](#); [Optional Email Template](#)

Reactive Talking Points

Please see [Protecting Private Browsing Article](#) that addresses this topic. This [blog from paywall vendor Piano](#) is also recommended reading.

Privacy and user trust are the fundamental principles behind the efforts to disable the ability to detect incognito users. The intent of Incognito Mode is that users have the option to browse privately, including the fact that their session is "incognito." People use Incognito Mode for a number of reasons, including personal privacy and safety:

- Political dissidents
- Domestic abuse victims
- People wishing to protect personal information (health, gender identity, etc.)

In these situations, and in many others, people have important reasons for choosing to browse privately. Part of having the option to browse privately includes that your choice to do so is private as well.

Ensuring the use of private browsing is not detectable is in line with web standards for how private browsing should work. The W3C Technical Architecture Group observes that, while implementations of private modes might vary across browsers, *"One constraint that applies to deciding how web features should behave differently in private browsing modes is that the use of private browsing mode should not be detectable by websites."*

We want users to have a range of privacy-preserving options. While we're shoring up Incognito Mode to work as intended, as noted at Google I/O, Chrome is exploring new ways to offer users transparency and choice in an effort to give users additional options for setting their privacy preferences that may result in fewer users relying on Incognito Mode.

(If asked) There are no alternative Incognito Mode detection recommendations. There are no alternative recommendations for detecting Incognito Mode users. We appreciate the goals and concerns of publishers with meter models. If there are ways to support meter models with new approaches that don't open the door to other abuses, we are open to exploring those options.

Aug 2019 FileSystem API Fix

FileSystem API fix for Incognito Mode. In August 2019, Chrome released a bug fix to address an unintended consequence of the absence of an APIs that has allowed sites to detect whether users are browsing in Incognito Mode. Chrome's FileSystem API is unavailable in Incognito mode; by checking for the availability of the FileSystem API, a site could identify Incognito sessions. The fix effectively stops the FileSystem API from being used for this purpose.

The change only affects sites who are using the FileSystem API bug to detect Incognito Mode. Most sites with paywalls are not checking the presence of this API to surface modals that restrict site access and will be unaffected by this change. Only sites that use the bug to detect Incognito users and give them a different experience will be affected.

Jan 2020 - File System API update & Fixed Data Storage Limit

- File System API Permanent Requests (Issue) - Chrome will handle permanent file system requests similarly to temporary requests.

June 2020 - File System API update & Fixed Data Storage Limit

- Fixed Data Storage Limit (Issue) - Chrome will no longer provide a fixed data storage limit in Incognito Mode and will instead dynamically allocate the quota based on available memory.

TIMING NOTE: This change was originally announced with the File System API Permanent Requests fix in January 2020 for February 2020, but did not rollout at that time. Rollout was pushed to begin in July 2020, for Chrome versions 81+.

TIMELINE

Chrome 76 (July 30) - Launch for File System API temporary requests

Chrome 80 (Feb 4) - Launch for File System API permanent requests

Chrome 81+ (Starting July 6 2020, reaching 100% on August 21, 2020) - Launch for Fixed data storage limit (previously announced for Feb)

Press Coverage

- [“Chrome 76 and the end of the incognito loophole”](#) Piano Blog
- [“What Chrome’s Incognito Mode changes means to the metered paywall vs freemium debate”](#), INMA Blog, July 29
- [“Publishers will soon no longer be able to detect when you’re in Chrome’s incognito mode, weakening paywalls everywhere”](#) Neiman Lab; June 24
- [“Chrome’s privacy changes are a humbling reminder for subscription publishers”](#) Digiday; June 25

EXTERNAL FAQs

Q. I read that Google is facilitating users' ability to circumvent my paywall, is that right?

Chrome is fixing a bug that unintentionally enabled sites to detect incognito users by checking the availability of a certain API that is not available in incognito mode. To preserve user privacy, Chrome is rolling out a bug fix that will remove the ability to detect incognito sessions.

This bug fix does not affect paywalls in general. However, those sites that have been using this bug to detect incognito users for the purpose of deciding when to show a paywall, will no longer be able to do so.

Q. My site offers X pages before asking users to subscribe. However, in incognito mode, we are not able to monitor the # of pages that users saw. How does Google suggest that we address users that are accessing our content for free via Incognito mode?

A: We understand that enforcing meters in environments where cookies are not persistent is a challenge and that Chrome’s incognito mode is just one of these environments. Sites will need to decide for themselves how aggressive they want to be in reaching users accessing their sites in these environments.

Some options that sites could consider using include requiring users to sign-in, only making part of the article available or only making certain articles available to all users. Each of these options have additional considerations to weigh.

Q. When will these updates roll out?

This update is expected to roll out in Chrome 76 update, scheduled for stable release on July 30.

CONTACTS

| ROLE | CONTACT |
|-----------------------------------|---|
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Optional Email Template

Courtesy Heads Up Email Template for July Change (Jul 2020)

For partners who've previously engaged on this topic and are likely to be affected.

Subject: FYI: Update on Incognito Mode detection loophole fix coming to Chrome

Body:

[Partner],

I want to make you aware of Chrome's plans to gradually roll out a previously announced change that will impact the detection of Incognito Mode sessions. We announced this change in January and originally expected to begin rolling it out to users in February 2020. The rollout will now begin in early July. Here is a description of the change:

Chrome will no longer provide a fixed data storage limit in Incognito Mode and will instead dynamically allocate the quota based on available memory, as the previous behavior of providing a fixed quota could be used as a detection method. [Chromium issue #1017120](#)

As noted in the July 2019 blog post, [Protecting Private Browsing in Chrome](#), Chrome will continue to work to remedy methods of Incognito Mode detection in support of private browsing principles. Please let me know if you have any questions.

Courtesy Heads up Email Template for Chrome 80 Update (Feb 2020)

For partners who've previously engaged on this topic and are likely to be affected.

Subject: FYI: Additional Incognito Mode detection loophole fixes coming to Chrome

Body:

[Partner],

Since we previously discussed Chrome's changes from [July 2019](#), I want to be sure you're aware of some upcoming changes related to Incognito Mode. With the Chrome 80 release scheduled for early February 2020, Chrome will make two changes that will impact detection of Incognito Mode sessions:

1. Chrome will handle permanent file system requests similarly to temporary requests by deleting them at the end of Incognito Mode sessions, as the previous behavior of rejecting permanent file system storage requests could be used as a detection method. See [Chromium issue #990592](#)
2. Chrome will no longer provide a fixed data storage limit in Incognito Mode and will instead dynamically allocate the quota based on available memory, as the previous behavior of providing a fixed quota could be used as a detection method. [Chromium issue #1017120](#)

As noted in the July 2019 blog post, Chrome will continue to work to remedy methods of Incognito Mode detection in support of private browsing principles. Please let me know if you have any questions.